



NOAA Teacher at Sea
James Miller
Onboard NOAA Ship RAINIER
August 13 - 27, 2005

Log 1

Day 1: Saturday, August 13, 2005

Location: In port at Homer, AK Ferry Terminal

Weather: Sunny, 70's

Science and Technology Log

I was picked up at the hotel by the ship's liberty van at noon. At the ship, I was greeted by Officer Laurel Jennings who assigned me temporary sleeping quarters. To my surprise, the room was two doors down from the captain's cabin and across the hall from the executive officer's - which probably explains why they said temporary. Typically, crew and guests are assigned shared rooms down in the bottom of the ship and officers and scientists have more private and comfortable rooms near the Bridge.



Following the room assignment, Officer Jennings gave me a thorough tour of the ship. I was amazed at how much space there is onboard a ship that appears, from the outside, to be relatively small. I also had an opportunity to meet Commanding Officer Guy Noll. He was very friendly and informative. He said that on Tuesday the ship will be hosting some Congressional staff visitors from the Senate Appropriations Committee. Later that afternoon following the visit the ship will depart for Mitrofanina Island that is located several hundred miles south of Kodiak Island. He also said the ship has been fortunate to have successful cruises this season with favorable weather; however, it seems we may encounter a strong weather front on Wednesday or Thursday. The forecast is calling for gale force winds and seas to 17 feet. So it appears I will be experiencing what it is like to work on a ship in rough seas right from the get go!

There were many details that I learned about the ship during my tour. Some of them included:

- 1) Ship Specifications: The RAINIER was built in 1967 and is 231 feet long. Its complement is 10 commissioned officers, 35 crew, 4 engineers, and 4 scientists (and 1-2 Teacher-at-sea members). The RAINIER was designed mainly to be a

coastal waters ship. Due to its relatively shallow draft (only 15 feet) and high center of gravity, it is susceptible to rough seas. The ship cruises at 12 knots and has a range of 5,898 miles.

- 2) Ship's Mission: The RAINIER's primary mission is to collect and analyze bottom contour data to eventually be used in navigation charts. The ship is equipped with six 29-foot launches fixed with various bottom sonar devices that are deployed to map the ocean bottom in coastal waterways in and around Alaskan. The process from data collection, to analysis, to navigational charts is a lengthy one. Currently it takes up to three years for the data that the RAINIER collects to make it onto charts. I was amazed to hear that many areas around AK have never been charted. In fact, the waters around Mitrofanina Island are one such area. Other responsibilities of the RAINIER are GPS mapping of obstructions, and bottom and seawater temperature collection.
- 3) Propulsion System: The engine is always in gear, meaning the propellers are always turning. Forward, neutral, and reverse is obtained by varying the pitch of the propeller blades. Neutral pitch yields zero thrust, positive pitch yields forward thrust, and negative pitch yields reverse thrust.
- 4) Other than food supply, the ship is totally self-sufficient. It generates its own 110-volt power; it produces its own fresh water by a process of desalination; it cleans all wastewater prior to discharging it; and it has its own incinerator to dispose of burnable waste such as paper, cardboard, and rags.

Personal Log

I'm really excited and find myself fascinated about the smallest of details regarding living onboard ship, the facilities, its mission, and the crew's job responsibilities. One such detail is they have a small workout area with treadmills. I couldn't help but wonder how in the world they run on the treadmill when the ship is underway or tossing? Liberty is given to the crew on weekends; therefore, there is only a fraction of the crew on board. Everyone I've met thus far seems friendly and happy to have me aboard. Two TAS members left the ship as I arrived, so the crew is very familiar with the myriad of questions coming from us greenhorns. I had my first meal on board (beef potpie), which was excellent. I'm having a bit of trouble remembering all the crewmembers names and responsibilities, but I'm sure it will come with time. I suppose as soon as I do commit it to memory it will be time for me to leave. I'm looking forward to being put to work. I was told that they are a bit shorthanded this leg and there going to use me every chance they get. Sounds good to me!

Things to do tomorrow:

- 1) Get a computer network password and email address.
- 2) Watch the computer network security video.
- 3) Get assigned a survival suit and all other required gear.
- 4) Get mandatory survival suit training.
- 5) Fill out new crewmember packet and get proper clearance from Officers.